REMARKS

Applicants have studied the Final Office Action dated November 26, 2007. Claims 1-31 are pending. Claims 1-3, 7, 10, 16-21, and 25-27 have been amended to more clearly disclose the present invention. Claim 31 has been newly added. No new matter has been added as the amendments have support in the application as originally filed. In particular, support for amendments to independent claims 1, 10, 16, and 25 and new claim 31 can be found, for example, at paragraphs 0036 and 0039 in the specification and in Fig. 2. It is submitted that the application, as amended, is in condition for allowance. Reconsideration is respectfully requested.

Rejection under 35 U.S.C. § 103

Claims 16-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art in view of U.S. Patent No. 4,868,558 to Andros et al. (hereinafter "Andros"). This rejection is respectfully traversed.

It is respectfully noted that the Examiner asserts, at paragraph 4 of the Office action, that the Applicant's admitted prior art shows a data redundancy system wherein a first active unit and second standby unit, respectively, comprising bridges 50A/50B, memories 10A/10B for storing routing information, and information from the first bridge 50A stored in the first memory 10A is transmitted to the second memory 10B via one path the second bridge 50B, citing Fig. 1 and paragraphs 0005, 0007, and 0009 of the present application. It is further respectfully noted that the Examiner asserts that the first and second bridges 50A and 50B are equivalent to the "switches."

It is respectfully noted that the Examiner further asserts that while the Applicant's admitted prior art did not explicitly disclose simultaneously transferring the routing information to a second unit while storing the routing information in the first memory, Andros discloses that a "latch U54 can send (route) and store messages simultaneously once alerted of a failure in another latch," citing col. 26, ln. 27-33 and Fig. 21A. The Examiner concludes that it would have been obvious to combine the "latch" taught by Andros to the "switch" of the Applicant's admitted prior art for efficient date transferring.

Contrary to the Examiner's assertion, Applicant respectfully submits that the asserted "switch" is not disclosed in the Applicant's admitted prior art and the "bridge" disclosed in the Applicant's admitted prior art is not equivalent to the switching unit recited in claim 16 for the following reasons. First, the above mentioned deficiencies of the Applicant's admitted prior art

with respect to simultaneously transferring the routing information to a second unit while storing the routing information in the first memory, as recited in claim 16, is due to the "PCI-to-PCI bridge" which is not equivalent to the switching unit recited in claim 16.

Second, as shown in FIG. 1 and described at paragraph [0007] in the specification, in the Applicant's admitted prior art, a north bridge 40A of the active board reads data stored in the memory unit 10A, and transfers the data to a PCI-to-PCI bridge 50A. Then the PCI-to-PCI bridge 50A outputs the memory data to the standby board. The memory data output from the active board is received by the standby board through a PCI-to-PCI bridge 50B, and a north bridge 40B reads the memory data received by the PCI-to-PCI bridge 50B and stores it in the standby memory 10B. As further described at paragraph [0008], due to the characteristics of the PCI-to-PCI bridges, a certain time delay occurs when the memory data is transferred from the active board to the standby board. Consequently, in the conventional art, a real time mirroring is not possible in the communication between the active board and the standby board. In fact, the data redundancy system according to independent claim 16 was invented to overcome this problem by substituting the conventionally used "PCI bridge" disclosed in the Applicant's admitted prior art with a switching unit, as recited in claim 16.

Moreover, Andros, which discloses a paging network utilizing a plurality of distributed switches to transmit pages on a "non-real time" basis (abstract), fails to cure the deficiencies of the Applicant's admitted prior art with respect to the first unit comprising a first switching unit and second unit comprising a second switching unit, as recited in independent claim 16.

Therefore, even if Andros is combined with the Applicant's admitted prior art, as asserted by the Examiner, they fail to disclose or suggest that the routing information is transferred along one path from the first switching unit **directly** to the second switching unit, as recited in independent claim 16, as amended. Accordingly, it is respectfully asserted that claim 16 and its dependent claims 17-20 are allowable over the cited combination of references.

Claims 1 and 2 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,856,594 B1 to Aihara et al. (hereinafter "Aihara"). This rejection is respectfully traversed.

With regard to the rejection of independent claim 1, it is respectfully noted that the Examiner asserts, at paragraph 5 of the Office action, that Aihara discloses that the C switch routes routing information to the F switch **through line interfaces**, citing col. 4, ln. 42-47. It is further respectfully noted that the Examiner asserts that while Aihara may not have explicitly mentioned the mirrored routing information is transferred along "one path," the Examiner takes

official notice that it is well known in the art to have "one path" transferring mirrored information, citing the Applicant's admitted prior art as an example.

Applicant respectfully disagrees with the Examiner with regard to the "one path." It is respectfully submitted that the inventive router apparatus according to independent claim 1 accomplished that routing information of a first unit is mirrored to a second unit in real time by substituting the conventional PCI bridge with a switching unit and simplifying the signal transfer path in the router, as described at paragraphs 0041 and 0042 in the specification of the present application. Further, independent claim 1, as amended recites that the mirrored routing information is transferred along one path from a first switching unit of the first unit **directly** to a second switching unit of the second unit. Amended independent claim 1 further recites that at least one of the first unit and the second unit comprises at least one **programmable logic device (PLD)** for controlling the at least one switching unit.

It is respectfully submitted that neither Aihara nor the Applicant's admitted prior art discloses mirrored routing information is transferred along one path from a first switching unit of the first unit **directly** to a second switching unit of the second unit and at least one of the first unit and the second unit comprises at least one **programmable logic device (PLD)** for controlling the at least one switching unit, as recited in amended independent claim 1. Accordingly, it is respectfully asserted that independent claim 1 and claim 2, which depends from claim 1, are allowable over the cited reference.

Claims 3-5, 10-12, 15, 17-19, 25-27, and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aihara in view of U.S. Patent No. 6,487,169 B1 to Tada (hereinafter "Tada"). This rejection is respectfully traversed.

With regard to the rejections of claims 3-5, as previously asserted, independent claim 1, as amended, is allowable over Aihara. Furthermore, it is respectfully asserted that Tada fails to cure the deficiencies of Aihara with respect to mirrored routing information is transferred along one path from a first switching unit of the first unit **directly** to a second switching unit of the second unit and at least one of the first unit and the second unit comprises at least one **programmable logic device (PLD)** for controlling the at least one switching unit, as recited in amended independent claim 1. In view of this, it is respectfully submitted that independent claim 1 is allowable over the combination of Aihara and Tada. Accordingly, it is further respectfully submitted that claims 3-5, which depend from claim 1, are also allowable over the cited combination of references.

With regard to the rejection of independent claim 10, similar to the discussion above in connection with the rejection of independent claim 1, it is respectfully submitted that Tada fails to cure the deficiencies of Aihara with respect to the routing information is transferred along one path from the first switching unit of the first unit **directly** to the second switching unit of the second unit, as recited in amended independent claim 10. Accordingly, it is respectfully asserted that independent claim 10 and claims 11, 12, and 15, which depend from claim 10, are allowable over the cited combination of references.

With regard to the rejections of claims 17-19, it is respectfully noted that the Examiner is silent as to the rejection of claims 17-19 under this rejection. Applicant respectfully requests the Examiner to provide reasons for all of the rejected claims. Nevertheless, it is respectfully asserted that claims 17-19 are allowable over the cited combination of references because they depend from allowable independent claim 16.

With regard to the rejection of independent claim 25, similar to the discussion above in connection with the rejections of independent claims 1 and 10, it is respectfully submitted that Tada fails to cure the deficiencies of Aihara with respect to the routing information is transferred along one path from the first switching unit of the first unit **directly** to the second switching unit of the second unit, as recited in amended independent claim 25. Accordingly, it is respectfully asserted that independent claim 25 and claims 26, 27, and 29, which depend from claim 25, are allowable over the cited combination of references.

Claims 6 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aihara in view of Tada, and further in view of U.S. Patent No. 6,493,593 to Kamiya et al. (hereinafter "Kamiya"). This rejection is respectfully traversed.

As previously asserted, independent claims 1 and 10, as amended, are allowable over Aihara and the combination of Aihara and Tada, respectively. Furthermore, it is respectfully asserted that Kamiya fails to cure the deficiencies of the combination of Aihara and Tada with respect to mirrored routing information is transferred along one path from a first switching unit of the first unit **directly** to a second switching unit of the second unit and at least one of the first unit and the second unit comprises at least one **programmable logic device (PLD)** for controlling the at least one switching unit, as recited in amended independent claim 1, and the routing information is transferred along one path from the first switching unit of the first unit **directly** to the second switching unit of the second unit, as recited in amended independent claim 10. In view of this, it is respectfully submitted that amended independent claims 1 and 10 are allowable over the combination of Aihara, Tada and Kamiya. Accordingly, it is further

respectfully submitted that claims 6 and 13, which respectively depend from claims 1 and 10, are also allowable over the cited combination of references.

Claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Aihara in view of U.S. Patent No. 6,005,841 to Kicklighter (hereinafter "Kicklighter"). This rejection is respectfully traversed.

As previously asserted, independent claim 1, as amended, is allowable over Aihara. Furthermore, it is respectfully asserted that Kicklighter fails to cure the deficiencies of Aihara with respect to mirrored routing information is transferred along one path from a first switching unit of the first unit **directly** to a second switching unit of the second unit and at least one of the first unit and the second unit comprises at least one **programmable logic device (PLD)** for controlling the at least one switching unit, as recited in amended independent claim 1. In view of this, it is respectfully submitted that amended independent claim 1 is allowable over the combination of Aihara and Kicklighter. Accordingly, it is further respectfully submitted that claim 7, which is dependent from claim 1, is also allowable over the cited combination of references.

Claims 8 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aihara in view of Tada, and further in view of Kicklighter. This rejection is respectfully traversed.

As previously asserted, independent claim 1, as amended, is allowable over the combination of Aihara and Tada. Furthermore, it is respectfully asserted that Kicklighter fails to cure the deficiencies of the combination of Aihara and Tada with respect to mirrored routing information is transferred along one path from a first switching unit of the first unit **directly** to a second switching unit of the second unit and at least one of the first unit and the second unit comprises at least one **programmable logic device (PLD)** for controlling the at least one switching unit, as recited in amended independent claim 1. In view of this, it is respectfully submitted that amended independent claim 1 is allowable over the combination of Aihara, Tada and Kicklighter. Accordingly, it is further respectfully submitted that claims 8 and 9, which are dependent from claim 1, are also allowable over the cited combination of references.

Claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Aihara in view of Tada, and further in view of Kicklighter. This rejection is respectfully traversed.

As previously asserted, independent claim 10, as amended, is allowable over the combination of Aihara and Tada. Furthermore, it is respectfully asserted that Kicklighter fails to cure the deficiencies of the combination of Aihara and Tada with respect to the routing

information is transferred along one path from the first switching unit of the first unit **directly** to the second switching unit of the second unit, as recited in amended independent claim 10. In view of this, it is respectfully submitted that amended independent claim 10 is allowable over the combination of Aihara, Tada and Kicklighter. Accordingly, it is further respectfully submitted that claim 14, which is dependent from claim 10, is also allowable over the cited combination of references.

Claims 16-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aihara in view of Tada, and further in view of Andros. This rejection is respectfully traversed.

With regard to the rejection of independent claim 16, similar to the discussion above in connection with the rejections of independent claims 1, 10, 16, and 25, it is respectfully submitted that Aihara, Tada, and Andros, independently or in combination, fail to disclose or suggest that the routing information is transferred along one path from the first switching unit **directly** to the second switching unit, as recited in amended independent claim 16. Accordingly, it is respectfully asserted that independent claim 16 and claims 17-20, which depend from claim 16, are allowable over the cited combination of references.

Claims 21-24, 28, and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aihara in view of Tada and Andros, and further in view of U.S. Patent No. 5,182,801 to Asfour (hereinafter "Asfour"). This rejection is respectfully traversed.

As previously asserted, independent claim 16, as amended, is allowable over the combination of Aihara, Tada, and Andros and claim 25 is allowable over the combination of Aihara and Tada. Furthermore, it is respectfully asserted that Asfour fails to cure the deficiencies of the combination of Aihara, Tada, and Anros with respect to the routing information is transferred along one path from the first switching unit **directly** to the second switching unit, as recited in amended independent claim 16.

Also as previously asserted, independent claim 25, as amended, is allowable over the combination of Aihara and Tada. Furthermore, similar to the discussion above in connection with rejection of independent claim 16, Andros and Asfour fail to cure the deficiencies of the combination of Aihara and Tada with respect to the routing information is transferred along one path from the first switching unit of the first unit **directly** to the second switching unit of the second unit, as recited in amended independent claim 25.

In view of the above discussion, it is respectfully submitted that independent claims 16 and 25, as amended, are allowable over the combination of Aihara, Tada, Andros, and Asfour.

Accordingly, it is submitted that claims 21-24, which depend from claim 16, and claims 28 and 30, which depend from claim 25, are also allowable over the cited combination of references.

CONCLUSION

In light of the above remarks, Applicant submits that the present Amendment places all claims of the present application in condition for allowance. Reconsideration of the application, as amended, is requested.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California, telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

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